TJ Pavaritpong

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EDUCATION

University of Illinois Urbana-Champaign　　　　　　　　　　Expected Graduation: Dec 2024
B.S. in Statistics & Computer Science; GPA: 3.46 / 4.00　　　　　　　　　　　　*Champaign, IL*
Relevant Coursework: Algorithms, Computer Systems, Database Systems, Numerical Methods, Statistical Modeling

EXPERIENCE

Quant Illinois　　　　　　　　　　　　　　　　　　　　　　Sep 2023 – Present
Quantitative Trader　　　　　　　　　　　　　　　　　　　　　　*Champaign, IL*
- Researching and implementing statistical arbitrage strategies for cryptocurrencies for student-run investment fund

Agoda　　　　　　　　　　　　　　　　　　　　　　　　　Jan 2023 – Jun 2023
Data Engineer Intern　　　　　　　　　　　　　　　　　　　　　*Bangkok, Thailand*
- Migrated 12 Google Ads API report downloader applications across teams, leveraging **Hadoop**, **Spark**, **Hive**, **Scala**, and **GitLab CI/CD** to efficiently process data for large-scale data pipelines
- Optimized algorithm performance, reducing application runtime by a linear factor from **4 hours to 20 minutes**
- Resolved two critical production incidents caused by incorrectly formatted data returned by the Google Ads API
- Created a Slack bot to explain **SQL** and **Spark** ETL pipelines to stakeholders using **Python** & GPT-3
- Devised and implemented a data validation rule in **SQL** based on moving averages to improve data anomaly detection; Backtested using **RStudio** to test against historical data to ensure correctness

Zipmex　　　　　　　　　　　　　　　　　　　　　　　　Jun 2022 – Jul 2022
Software Engineer Intern (Frontend)　　　　　　　　　　　　　　　　*Bangkok, Thailand*
- Created and styled new **React** UI components to match Figma designs for trading-related pages, contributing to a website revamp and light theme release
- Refactored legacy UI components into reusable **React**/**Material-UI** components, enhancing visual consistency
- Improved code quality & debugging by enhancing type inference in the React & Redux codebase with **TypeScript**

Central Group　　　　　　　　　　　　　　　　　　　　　　Jun 2019 – Aug 2019
Software Engineer Intern (Mobile)　　　　　　　　　　　　　　　　*Bangkok, Thailand*
- Identified inefficiencies within retail store and warehouse operations, leading to targeted improvements
- Streamlined warehouse processes across 200 service points by integrating Scandit's barcode-scanning library into the employees' mobile app, written in **Ionic** and **Angular**, to enable instant bulk-scanning of shipment labels
- Leveraged **Tesseract.js**' optical character recognition (OCR) to enable product information extraction from receipts and shelf tag verification and correction
- Optimized text recognition of the Thai alphabet and numerals by tuning image-processing settings

PROJECTS

Peer2Pair: Community Finder for Hobbies | *React, Node.js, MySQL, Microsoft Azure, Material-UI, LivePeer*
- *Led a beginner hackathon team* to create a web app that helps match people with similar interests working towards the same goals. Used LivePeer, a blockchain video broadcasting network, as part of the backend.

Illini CC'd: Credit Card Recommender | *React, Node.js, MySQL, GCP, Material-UI*
- Led the project and created the whole React front-end UI
- Collaborated with a team to design the database schema, scrape the web for credit card offers and benefits, develop API endpoints, and host the application on Google Cloud Platform

Openflights Dataset Analyzer | *C++, Catch2*
- Implemented BFS and Dijkstra's algorithm to find the shortest flight itinerary between two airports
- Implemented PageRank to identify the biggest airport hubs in a given region

Blackjack Simulator | *C++, Catch2, Cinder*
- Developed a 2D blackjack simulator designed to train players in optimal strategy

SKILLS

Languages: Python, SQL, JavaScript, TypeScript, R, Scala, C, C++, HTML, CSS
Frameworks & Libraries: React, Node.js, Apache Spark
Developer Tools: Git, Linux/Unix, Scrum Methodology